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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,827	10/16/2003	Kenneth Andrew Moisey	1322/153	8476

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EXAMINER

BUI, BING Q

ART UNIT PAPER NUMBER

2642

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,827

Applicant(s)

MOISEY ET AL.

Examiner

Bing Q. Bui

Art Unit

2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/10/03 & 11/21/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-45 are pending in the application for examination, wherein claims 1 and 20 being independent.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Stevens et al (US Pat No. 6,519,331), herein after referred as Stevens.

Regarding claim 1, referring to figures 2-4, Stevens teaches a method for detecting and mitigating call routing arbitrage, the method comprising:

(a) receiving a plurality of signaling messages relating to calls in a telecommunications network (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65);

(b) identifying, from the plurality of signaling messages, signaling messages that are candidates for call routing arbitrage screening (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65);

(c) from the signaling message identified as candidates for call routing arbitrage screening, examining at least one parameter in the signaling messages to determine

the presence of call routing arbitrage (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65); and

(d) in response to identifying the presence of call routing arbitrage, performing an arbitrage mitigation action (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 2, referring to figures 2-4, Stevens teaches the method of claim 1 wherein receiving signaling messages includes receiving SS7 signaling messages and wherein identifying messages as candidates for call routing arbitrage screening includes identifying ISUP IAM messages (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 3, referring to figures 2-4, Stevens teaches the method of claim 1 wherein receiving signaling messages includes receiving SS7 signaling messages encapsulated in IP datagrams and wherein identifying signaling messages as candidates for call routing arbitrage screening includes identifying ISUP IAM messages from the IP-encapsulated SS7 messages (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 4, referring to figures 2-4, Stevens teaches the method of claim 1 wherein receiving signaling messages includes receiving packet telephony signaling messages and wherein identifying signaling messages as candidates for call routing arbitrage screening includes identifying signaling messages used to initiate a packet telephony call or session (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 5, referring to figures 2-4, Stevens teaches the method of claim 1 wherein examining at least one parameter in each of the candidate signaling messages includes examining a calling party identification parameter in each of the signaling messages (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 6, referring to figures 2-4, Stevens teaches the method of claim 1 wherein examining at least one parameter in each of the signaling messages includes examining a jurisdiction informational parameter in each of the signaling messages (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 7, referring to figures 2-4, Stevens teaches the method of claim 1 wherein identifying the presence of call routing arbitrage includes identifying the presence of call routing arbitrage in response to the parameter being set to any value that is outside of a list of recognized values (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 8, referring to figures 2-4, Stevens teaches the method of claim 1 wherein identifying the presence of call routing arbitrage includes identifying the presence of call routing' arbitrage in response to the parameter being set to a predetermined value (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 9, referring to figures 2-4, Stevens teaches the method of claim 8 wherein the predetermined value is customizable by a network operator (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 10, referring to figures 2-4, Stevens teaches the method of claim 1 wherein identifying the presence of call routing arbitrage includes identifying signaling

messages that are intended to make long-distance calls appear to a terminating carrier as local calls by routing the calls through local trunk groups of an intermediate carrier (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 11 referring to figures 2-4, Stevens teaches the method of claim 1 wherein performing an arbitration mitigation action includes dropping a call for which call routing arbitrage has been identified (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 12, referring to figures 2-4, Stevens teaches the method of claim 1 wherein performing an arbitrage mitigation action includes redirecting a call for which call routing arbitrage has been identified to an interactive voice response server (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 13, referring to figures 2-4, Stevens teaches the method of claim 12 comprising, at the IVR server, requesting information missing from a call signaling message, and in response to receiving the information, reconstructing the call signaling message, and completing the call using the reconstructed call signaling message (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 14, referring to figures 2-4, Stevens teaches the method of claim 12 comprising, at the IVR server, requesting information missing from a call signaling message and in response to failing to receive the requested information, dropping the call (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 15, referring to figures 2-4, Stevens teaches the method of claim 1 wherein performing an arbitration mitigation action includes obtaining jurisdictional

information from a number portability database and using the received jurisdictional information to fill in missing jurisdictional information from a call signaling message for which call routing arbitrage has been identified (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 16, referring to figures 2-4, Stevens teaches the method of claim 1 wherein steps (a)-(d) are performed at a signal transfer point (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 17, referring to figures 2-4, Stevens teaches the method of claim 1 wherein steps (a)-(d) are performed at an SS7/IP gateway (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 18, referring to figures 2-4, Stevens teaches the method of claim 1 wherein steps (a)-(d) are performed at a media gateway controller (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

Regarding claim 19, referring to figures 2-4, Stevens teaches the method of claim 1 wherein steps (a)-(d) are performed by a stand-alone network monitoring system (see figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65).

As to claims 20-45, also note figs 2-4; and col. 2, lns 11-23; and col. 2, ln 44-col. 6, ln 65.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art in general:

U.S. Pat. No. 5,463,681

U.S. Pat. No. 5,805,686

U.S. Pat. No. 5,995,604

U.S. Pat. No. 6,307,926

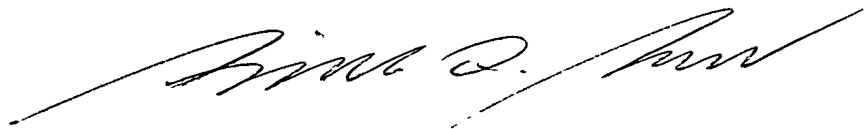
U.S. Pat. No. 6,590,967

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bing Bui whose telephone number is (571) 272-7482. The examiner can normally be reached on Monday through Thursday from 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 and for formal communications intended for entry (please label the response ☐EXPEDITED PROCEDURE☐) or for informal or draft communications not intended for entry (please label the response "PROPOSED" or "DRAFT").

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

25 June 2005



BING Q. BUI
PRIMARY EXAMINER